



KENTUCKY CENTER FOR
EDUCATION & WORKFORCE STATISTICS

2017-19 RESEARCH AGENDA

EDUCATION THROUGH WORKFORCE PATHWAYS

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The Kentucky Center for Education and Workforce Statistics (KCEWS) is tasked with collecting accurate education and workforce data in the Kentucky Longitudinal Data System (KLDS) to evaluate, conduct research, and provide information about education and workforce to better inform decision makers throughout the Commonwealth. The Board of the Kentucky Center for Education and Workforce Statistics is composed of key leadership from the Kentucky Department of Education (KDE), the Council on Postsecondary Education (CPE), the Education Professional Standards Board (EPSB), the Kentucky Higher Education Assistance Authority (KHEAA), and the Education and Workforce Development Cabinet (EWDC). The Board has developed this biennial research agenda to help guide the work of the Center to focus on critical education, training, and workforce areas of need.

The theme of the KCEWS 2017-2019 Research Agenda is Education through Workforce Pathways. The Board has identified four primary objectives with a focus on linking education and workforce data from multiple sources (KRS 151B.133) to identify pathways of students through employment to be used to

guide impactful decisions throughout the Commonwealth of Kentucky's education system and training programs (KRS 151B.132).

I. Expand Data Access and Use to Inform Impactful Decisions Related to Education and Workforce through the Commonwealth

A continued component of the previous research agenda and one of the primary goals of the 2015 State Longitudinal Data Systems (SLDS) grant from the US Department of Education is to increase alignment and data use between education and workforce. In addition, there will be a focus on increasing the usability of and access to robust, accurate and timely data about student performance and employment to be used to guide decision makers in improving the Commonwealth of Kentucky's education system and training programs. As more data sources are integrated and existing data sources are expanded into the KLDS, development of standards and statistical procedures to maintain the accuracy of the de-identified data warehouse is crucial to the research agenda. A website to offer more user-friendly ways to request data and to view timely, dynamic reports is on the forefront of expanding data usage across the Commonwealth. KCEWS will build a dynamic reporting solution, allowing various stakeholders to manipulate data and generate customized reports. Data visualizations and best practices in dynamic reporting, using the recently acquired Tableau software, is a component of the SLDS grant. KCEWS will develop training documents to meet the needs of various types of users and it will be delivered in a multitude of ways, including but not limited to: on-line tutorials, webinars, written manuals with examples, and frequently asked questions. The training program will be updated on a continuous basis based on the frequency of use and user feedback. KCEWS will also expand agency partner's access to the de-identified reporting warehouse through: 1) the expansion of federal report capabilities, and 2) the development of a more robust process to access de-identified data and aggregate reports. Research, related to the expansion of data use, should address the following critical questions:

- What are best practices in transitioning static reports into dynamic reporting?
- What training (i.e. instructional guides, webinars, etc.) needs to be in place for stakeholders to make better use of available data?
- In what ways can data requests and reports be standardized to make meaningful data readily available to facilitate impactful decisions?
- Is there a standard, more robust process that KCEWS could use to get data to stakeholders quicker?
- How might KCEWS better market the tools and resources available to all stakeholders to address current and future needs?
- What is the alignment and availability of data in the KLDS as compared to the Common Education Data Standards (CEDS)?

KYSTATS has designed a new web interface based on stakeholder feedback to facilitate access to and awareness of updates to our Feedback Report Series (inclusive of the High School Feedback Report, Kentucky Future Skills Report, Kentucky Commuting Patterns, Early Childhood Profiles, Postsecondary Feedback Report, Kentucky Skills U Feedback Report, Work Ready Communities, and the Civilian Labor Force Report). The KYSTATS introductory whiteboard video has been produced with two additional

whiteboard videos currently in review. KYSTATS continues to receive national recognition in its data visualization leadership, being invited to present at conferences and participate as part of panel discussions to assist others in their visualization efforts.

KYSTATS added a report to its interactive series, the Civilian Labor Force Report: this report displays recent unemployment estimates, allowing timely access to critical employment data at the county, Local Workforce Area, and state levels. KYSTATS is currently finalizing updates to its remaining annual reports, the Teacher Preparation Feedback Report and Early Childhood Profiles, transforming these interactive reports into an updated and more accessible interactive format. CEDS alignment has been completed within the KLDS database and the alignment has been incorporated within the database and the data dictionary. Data requestors can request CEDS data elements.

Stage 1 of the KYSTATS intrastate traveling conference series has wrapped up with KYSTATS researchers compiling critical feedback on questions important to the broader Kentucky populace. KYSTATS is currently preparing for its biennial multi-day conference in September.

II. Evaluate Outcomes for Education and Workforce Programs Over Time

KCEWS, partnering state agencies, regions and local education and workforce agencies will continue to collaborate to conduct research and program evaluations to inform efforts to improve outcomes in early learning programs, K-12, postsecondary and workforce systems. Specifically within the scope of this research objective, a major component encompasses evaluation of outcomes related to education programs. The integration of additional early childhood data into the KLDS will enable questions related to the impact of early learning programs on successful transitions to Kindergarten through high school and eventually through the workforce. Reports should address the following critical questions:

- What are the completion, employment and retention rates for students in education and training provider programs across the Commonwealth?
- In what ways do educational programs impact the achievement gap from early learning through the labor market in Kentucky?
- How does Kentucky compare over time on key education and workforce measures such as: successful transitions between high school and the workforce, impact of dual credit on college access and success, re-engagement of adult learners, and alignment between career technical education and sector workforce needs?
- What are the data and reporting needs of stakeholders in order to provide research and evaluation for federal and state education and workforce programs?
- Which teacher preparation programs are producing graduates who work in different parts of the state, what are their retention rates in the profession, and how do they compare over time in measures of teacher effectiveness?
- In what ways can teacher preparation program impact be measured and accurately reported?
- What impact does financial aid have on college going and persistence?

KYSTATS has spent the past three months finalizing reports in collaboration with critical stakeholders and user feedback, fulfilling data requests (63 in all), and wrapping up stage one of our traveling conference series. KYSTATS was invited to participate and presented at the National Association of Workforce Boards to share Kentucky's work with WIOA program evaluation. The 115 Medicaid Waiver Briefing has been updated to include the 2018 Academic Year educational outcomes data and an additional quarter of UI wages. As an addition to the work already performed on the Benefit Medicaid request, KYSTATS has submitted a letter of intent to join on a National Science Foundation Grant, with the National Center for Children and Families in poverty, to create a family resource simulator for the state of Kentucky.

KYSTATS is now receiving direct data submissions from some Early Childhood programs, enabling integration of this data with additional educational records for the individual already submitted to the KLDS. KYSTATS has been approved regular access to data in KEE Suite, inclusive of workforce training programs under Division of Workforce Investment. This will allow KYSTATS to integrate this information with the additional education and workforce data already contained within the KLDS. Individual-level Supplemental Nutrition Assistance (SNAP) and Temporary Assistance for Needy Families (TANF) data will be provided to KYSTATS in 2019 for incorporation within the KLDS.

III. Connect Supply and Demand of Kentucky Future Workforce

Initial employment outcome data from the Center suggest new Kentucky workforce entrants vary in their level of educational attainment and initial employment workforce sector. An annual study series will compare education and training pathways through initial workforce engagement, to current and anticipated employment opportunities in Kentucky's workforce. A priority KCEWS objective is the integration of Kentucky Revenue data and its geolocation markers into the KLDS supplementing wage data provided by the Kentucky Unemployment Information System. This KLDS data combination will allow significantly better estimation of the alignment of the demand for new workforce entrants and the supply of individuals to fill those positions. KCEWS will continue to provide information about employment outcomes to secondary, postsecondary and workforce programs with updated employment location data. Location workforce data would allow research reports and evaluations to highlight more accurately the pathways from education through workforce engagement. Reports shall address the following critical questions:

- How well is the state's current pipeline of students progressing through the education and training systems aligned to meet the projected needs of Kentucky's workforce; both current and in the anticipated near-term?
- How do employment outcomes vary by demographic characteristics (gender, age, race/ethnicity, income level, etc.) and by workforce area, educational attainment level, study program, and locale?
- In what ways can skills and needs gaps be accurately measured and reported?
- Is it possible to anticipate emerging workforce needs which will not be met by current education and training trends?
- Are there gaps in the Kentucky workforce preparation systems which may be causing Kentucky to be less competitive in terms of retaining more of our graduates and attracting skilled workers from other regions of the country?

- What is the anticipated need for educators by subject area and region over the next several years?
- How does the current supply of students in educator preparation programs compare to the anticipated need for educators?
- Are there any critical shortage areas where Kentucky's educator preparation programs may not be able to fill an emerging demand for teachers in the near future?

The new interactive Civilian Labor Force Report provides both a current and historical glimpse into the state's civilian labor force, employment, unemployment and unemployment rates across the Commonwealth. Three additional Labor Force Updates have provided deeper perspectives on the Kentucky workforce, diving into topics ranging from the effect of business openings and closings on the Kentucky labor market to the share of workers by age group across Kentucky industries. The KYSTATS development team has the vast majority of individuals in the KLDS geocoded to census tract of home residence, opening a new avenue of research for labor supply. KYSTATS has negotiated a monthly data submission from FOCUS data to receive timely updates on employers, job openings, and job locations.

IV. Measure Impact of Out-Of-State Education and Workforce Migration

To date, little has been reported about the impact of in and out-of-state migration on workforce supply and demand in the Commonwealth. KCEWS has made it a priority objective to seek-out and integrate out-of-state employment and earnings data into the KLDS to identify the education outcomes and workforce participation of Kentuckians working in other states. KCEWS completed a feasibility study which identified some of the challenges, barriers and potential uses for new workforce data in the KLDS. Challenges were related to the time needed to integrate out-of-state data but also highlighted the great need to show employment outcomes for those primarily in Kentucky's bordering states. Specifically, the study identified several options for accessing out-of-state employment and earnings data including: the Western Interstate Commission for Higher Education (WICHE)/Multi-state Longitudinal Data Exchange (MLDE), Wage Record Interchange System 2 (WRIS2), Federal Employment Data Exchange System (FEDES), individual state level bi-lateral agreements, and other opportunities for data related to outmigration employment and earnings.

This objective involves selecting one or more of the listed data options to create and implement a sustainable model which integrates these data into the KLDS for use in research and reports. Due to the Commonwealth's recent emphasis on connecting labor force supply and demand using an education through workforce engagement pathways model, KCEWS perceives a need to address research questions regarding the interstate mobility of students, graduates, earners, etc. Reports shall address the following critical questions:

- What are the employment and earnings outcomes for those receiving credentials from out-of-state postsecondary institutions and returning for employment in Kentucky compared to those receiving credentials from in-state postsecondary institutions?
- What is the impact on employment and earnings outcomes for those students moving out-of-state following secondary and/or postsecondary education in Kentucky compared to those students who remain in the Kentucky workforce?
- Are credential earners in high demand fields leaving Kentucky for employment?

- What is the impact on Kentucky projected gaps in workforce demand of students receiving credentials out-of-state and returning to Kentucky for employment?
- How does outmigration vary by demographic characteristics (gender, age, race/ethnicity, income level, etc.) and by workforce area, educational attainment level, study program, and locale?

Based on the decision from our last board meeting, KYSTATS has the Memorandum of Understanding to participate in the Multistate Longitudinal Data Exchange (MLDE), lacking one signature, which would make it possible to determine education and employment outcomes for those moving to a state that is part of the MLDE. KYSTATS has begun the onboarding process from a technical perspective to prepare for data exchange. KYSTATS has received permission to submit data to determine out-of-state employment for education and training providers in Kentucky through WRIS and WRIS2 for reporting. The Coleridge Initiative is a promising avenue to gather both Indiana and Kentucky out-of-state outcomes. There is a cost associated with joining this initiative; however, they may waive the fees for the first year. Reporting with out-of-state outcomes should begin by fall.